Editor's note: 87 IBLA 535; Appealed -- reversed, sub nom. Tosco v. Watt, Civ. No. C-8680 (D. Colo. May 1, 1985), 611 F.Supp. 1130; dismissed as moot, No. 85-1968 (10th Cir. Aug. 12, 1987), 826 F.2d 948; see 68 IBLA 37

UNITED STATES v. CAMERON CATLIN BOHME ET AL.

UNITED STATES v. EXXON CORP. ET AL.

UNITED STATES v. AIDABELLE BROWN ET AL.

IBLA 79-558 (Supp.) Decided November 5, 1980

Supplemental proceeding to determine whether various oil shale placer mining claims are supported by a qualifying discovery of a prospectively valuable mineral deposit. Colorado Contest Nos. 658, 659, 660. By Order of the United States District Court for the District of Colorado, dated August 13, 1980.

Some claims in Contest No. 658 held supported in part by discovery. All claims in Contest No. 659 held null and void for lack of discovery. All claims in Contest No. 660 held supported by discovery.

1. Mining Claims: Generally -- Mining Claims: Determination of Validity -- Mining Claims: Discovery -- Mining Claims: Marketability -- Mining Claims: Placer Claims

   Under Shell Oil Co. v. Andrus, 446 U.S. 957, 64 L.Ed.2d 593 (1980), 48 U.S.L.W. 4603 (June 2, 1980), oil shale is a prospectively valuable mineral and therefore present marketability need not be shown to demonstrate discovery.

2. Mining Claims: Generally -- Mining Claims: Determination of Validity -- Mining Claims: Discovery -- Mining Claims: Placer Claims

To demonstrate a sufficient discovery of oil shale under Freeman v. Summers, 52 L.D. 201 (1927), a mining claimant must show that mineral was disclosed on or before February 25, 1920, in such situation and such formation that he or she can follow the deposit to depth with reasonable assurance that paying minerals will be found. An isolated bit of mineral, not connected with or leading to substantial prospective values, does not constitute a discovery.

3. Mineral Lands: Determination of Character -- Mining Claims: Lands Subject To

A single discovery of mineral within a placer mining claim does not conclusively establish the mineral character of all the land included in the location. Whether the land embraced in the claim is mineral in character is an issue which remains open to investigation and determination by the Department until patent issues. The contestee must establish that each 10-acre tract within the entire claim is mineral in character, failing in which any nonmineral 10-acre tract is properly excluded from the patent application.

4. Mining Claims: Determination of Validity -- Mining Claims: Discovery -- Mining Claims: Geologic Inference

Under Freeman v. Summers, 52 L.D. 201 (1927), an exposure of the Parachute Creek member, even though of limited extent, can be geologically inferred to embrace sufficient quantity of high grade oil shale so as to constitute a valuable mineral deposit.

Freeman v. Summers, 52 L.D. 201 (1927), is reinstated.

APPEARANCES: John Savage, Jr., Esq., Rifle, Colorado, for appellants in Contest No. 658; James Clark, Esq., and Bruce Pringle, Esq., Denver, Colorado, for appellants in Contest No. 659; H. Michael Spence, Esq., Denver, Colorado, Fowler Hamilton, Esq., and Richard W. Hulbert, Esq., New York, New York, and Donald L. Morgan, Esq., Washington, D.C., for appellants in Contest No. 660; Lowell L. Madsen, Esq., and Marla E. Mansfield, Esq., Office of the Regional Solicitor, U.S. Department of the Interior, Denver, Colorado, for the Government.

OPINION BY ADMINISTRATIVE JUDGE HENRIQUES

The above-captioned cases are before the Interior Board of Land Appeals by Order of the United States District Court for the District of Colorado, dated August 13, 1980. In this supplemental proceeding the Board is directed, with the consent of the parties hereto, to rule on the issue of whether the subject unpatented oil shale placer mining claims are each supported by a qualifying discovery of a mineral deposit.

These consolidated cases were the subject of the decision United States v. Bohme, 48 IBLA 267 (1980), in which the principal question presented by stipulation of the parties was whether contestees had substantially complied with the requirement of 30 U.S.C. § 28 (1976), that annual assessment work in the amount of $ 100 be performed for the benefit of each claim. We affirmed Administrative Law Judge Harvey C.

Sweitzer's dismissal of the complaint against the Compass claims, and that portion of his decision holding the Carbon and Elizabeth claims invalid on the asserted ground. His dismissal of the complaint against the Oyler claims was reversed and those claims declared invalid.

In these final Departmental proceedings upon the issue of discovery, we are instructed that the record in Shell Oil Co. v. Andrus, 1/ 446 U.S. 657, 64 L.Ed.2d 593 (1980), 48 U.S.L.W. 4603 (June 2, 1980), shall be considered part of the record in this proceeding. See Part B, Paragraph I, of Order of United States District Court, dated August 13, 1980.

As before, the several groups of contestees shall be referred to by contest number, or by the claim group names. With respect to evidentiary citations, "W" denotes the administrative hearing record before Administrative Law Judge Dent D. Dalby in United States v. Winegar, infra. "B" denotes the evidence adduced at the District Court trial of these matters; "P" and "D" refer, of course, to contestee/plaintiffs and to the Government as defendant in that trial.

Until the enactment of the Mineral Leasing Act of February 25, 1920 (Leasing Act), 30 U.S.C. § 181 (1976), oil shale was a locatable mineral. That Act withdrew oil shale, among other minerals, from

1/ The case originated in the Department as United States v. Winegar, 16 IBLA 112, 81 I.D. 370 (1974).

location and purchase under the Mining Law of 1872, subject to the savings clause of section 37, 30 U.S.C. § 193 (1976), which provides in material part:

> The deposits of * * * oil shale, * * * herein referred to, in lands valuable for such minerals, * * * shall be subject to disposition only in the form and manner provided in this chapter, except as to valid claims existent on February 25, 1920, and thereafter maintained in compliance with the laws under which initiated, which claims may be perfected under such laws, including discovery.

Under the mining law, discovery of a valuable mineral deposit is the sine qua non for a valid mining claim. Through the years since enactment of the mining statute, the Department and the courts have held that a discovery of a valuable mineral deposit has been made where minerals have been disclosed and the evidence is of such quantity and quality that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine. United States v. Coleman, 390 U.S. 599, 602 (1968); Cameron v. United States, 252 U.S. 450, 460 (1920); Chrisman v. Miller, 197 U.S. 313, 322 (1905); Castle v. Womble, 19 L.D. 455, 457 (1894). To be considered valuable, a mineral deposit must be capable of extraction, processing and marketing at a profit. United States v. Coleman, supra at 602; Converse v. Udall, 399 F.2d 616 (9th Cir. 1968), cert. denied, 393 U.S. 1025 (1969). Accordingly, a mineral deposit which yields only meager profits has been held to be not valuable within the meaning of the general mining law, on the

ground that no prudent person would invest in actual operations in such circumstances. See, e.g., United States v. Edwards, 9 IBLA 197, 203 (1973), aff'd, Edwards v. Kleppe, 588 F.2d 671 (9th Cir. 1978); United States v. Harper, 8 IBLA 357, 369 (1972).

The Department has always required that a mining claimant show, as a present fact, that there is a reasonable prospect of success in developing an operating mine that will yield a reasonable profit. The concept was first enunciated in Castle v. Womble, supra, and received full approbation in Chrisman v. Miller, supra. The rule has been consistently followed since. Ordinarily, speculation as to future changes in market conditions, technological improvements or inventions, or anticipated mineral prices will not demonstrate as a present fact that the commencement of actual mining operations would be justified. Foster v. Seaton, 271 F.2d 836, 838 (D.C. Cir. 1959); United States v. Denison, 76 I.D. 233, 239 (1969); United States v. Jenkins, 75 I.D. 312, 318 (1968). The proper test to be applied to pre-1920 oil shale claims, however, has been the subject of extension and recent litigation.

Interest in oil shale has always been tied to the belief that the mineral will at some future time become competitive with the liquid petroleum industry. Thus, in 1916, Geological Survey (Survey) classified certain lands as prospectively valuable for their oil shale content and so not subject to disposition under the agricultural land laws.

Based in part on Survey's land classification, the Instructions of May 10, 1920, 47 L.D. 548 (1920), issued directing the adjudication of oil shale patent applications in accordance with the requirements and limitations applicable to oil and gas placer claims and the requirements of the mining law.

In 1927 the case of Freeman v. Summers, 52 L.D. 201, enunciated the rule implied in the 1920 Instructions. That decision held that oil shale is a prospectively valuable mineral, and that claimants therein had discovered a valuable deposit. In addition, the case held that claimants, having found a lean outcropping of a mineral deposit in the Parachute Creek formation, could reliably infer the existence of the richer beds at depth.

Until 1960 Freeman v. Summers provided the rationale for the patenting of many hundreds of oil shale claims. In the case of United States v. Winegar, 16 IBLA 112, 81 I.D. 370 (1974), the Department had occasion to re-examine the holding of Freeman v. Summers, supra. A single issue was there presented: Whether oil shale was a valuable mineral deposit as of February 25, 1920, when the mineral was withdrawn from the operation of the general mining law by the Mineral Leasing Act, supra, and if so, whether such oil shale has continued to be a valuable mineral deposit within the meaning of the general mining law. This Board concluded, after an exhaustive survey of the industry and relevant law, that Freeman v. Summers had been wrongly decided, and

overruled it as contrary to the provisions of the general mining law.

Contestees obtained review in the United States District Court for the District of Colorado. Shell Oil Co. v. Kleppe, 426 F. Supp. 894 (D. Colo. 1977). The District Court held that the Board's overruling of Freeman v. Summers was violative of Congressional legislative authority, on the theory that hearings conducted by the Congress in 1930 and 1931 constituted approval of a "liberalized" rule of discovery in the case of oil shale placer mining claims. Shell Oil Co. v. Kleppe, supra at 901. The Court ruled that the Congress had taken a "special attitude toward oil shale lands" and ratified Freeman v. Summers as "an exception to the traditional discovery rule" because of "the unusual role of oil shale as a natural resource in contrast to other locatable minerals." Id. The Government appealed the District Court's ruling.

In Shell Oil Co. v. Andrus, 591 F.2d 597 (10th Cir. 1979), that Court affirmed the District Court and held that (syllabus statement) "the different treatment afforded all oil shale claims [in the period 1920 to 1960] as to the valuable mineral deposit element of a location became a part of the general mining laws by reason of its adoption and approval by both houses of Congress during the intensive investigations of this very question and their affirmative resolution of the issue," and therefore concluded that "the changes herein sought to be made by

the Department as to 1920 standards incorporated in the mining laws were beyond executive authority." Id.

The 10th Circuit result was affirmed sub nom. Andrus v. Shell Oil Co., 446 U.S. 1932, 64 L.Ed.2d 593 (1980), 48 U.S.L.W. 4603 (June 2, 1980). The Supreme Court stated the issues before the Department in Freeman v. Summers as "(1) whether a finding of lean surface deposits warranted the geological inference that the claim contained rich valuable deposits below; and (2) whether present profitability was a pre-requisite to patentability" (64 L.Ed.2d 593 (1980), 48 U.S.L.W. 4603, 4606 (1980)). (Emphasis supplied.) Both issues were decided in favor of the oil-shale claimant.

[1] We think it clear beyond peradventure that oil shale is now a prospectively valuable mineral with respect to which present marketability need not be shown under Shell Oil, supra.

[2] Freeman v. Summers states that the mining law requires that

> mineral be discovered within the limits of the claim located; that the mineral indications shall be such as to warrant a prudent man in the further expenditure of time and money, with a reasonable prospect of success. In order to warrant that proceeding, he must have discovered mineral in such situation and such formation that he can follow the vein or the deposit to depth, with a reasonable assurance that paying minerals will be found. In other words, the discovery of an isolated bit of mineral, not connected with or leading to substantial prospective values, is not a sufficient discovery; * * * [i]t is sufficient * * * if he

> finds mineral in a mass so located that he can follow the vein or the mineral-bearing body, with reasonable hope and assurance that he will ultimately develop a paying mine. [Emphasis supplied.]

52 L.D. at 204, 205.

As we read Freeman v. Summers, an exposure of the Parachute Creek member, even though of limited extent, can be geologically inferred to embrace sufficient quantity of high grade oil shale so as to constitute a valuable mineral deposit. We thus perceive one of the issues before this Board is whether contestees' claims contain an exposure of the Parachute Creek member that can be followed to depth with a reasonable assurance that paying minerals will be found.

[3] A single discovery of mineral sufficient for the location of a placer mining claim does not, however, conclusively establish the mineral character of all the land included in the location. Whether land embraced in a location is mineral in character is an issue which remains open to investigation and determination by the Department until patent issues. "The statute, mining regulations, and decisions clearly contemplate that a placer location may be made of a 10-acre tract in square form. If such a tract, whether in a location by itself or included with other such tracts in a maximum location, is proven to be nonplacer ground, such tract can not pass to entry and patent under the placer application." American Smelting and Refining Co., 39 L.D. 299

at 301 (1910). See also United States v. McCall, 7 IBLA 21 (1972); Crystal Marble Quarries Co. v. Dantice, 41 L.D. 642 (1913).

The Government has moved to dismiss the charge of lack of discovery against portions, infra, of the Southwest and Northwest claims, and against the Oyler Nos. 1 through 4 claims (Opening Brief pp. 77-78, 130). The motion is granted, and accordingly, the remainder of the discussion concerns only parts of the Southwest and Northwest claims, the Southeast and Northeast claims in their entirety, and the Carbon and Elizabeth claims.

THE COMPASS GROUP

These claims are physically located on the east face of a precipitous ridge called Cow Ridge. 2/ The claims are entirely underlain by the Green River formation, and contain the Uinta formation, the Parachute Creek and Lower Shaly 3/ members (B-D 101(a), p. 4).

As previously noted, contestees in No. 658 applied for mineral patent in 1959. In connection therewith, Ralph Spengler, Warren Sholes, and James F. McIntosh, valuation engineers employed by the Bureau of Land Management (BLM), prepared a mineral report dated

2/ The Compass claims are situate in W 1/2 E 1/2 NE 1/4, W 1/2 NE 1/4, N 1/2 NW 1/4, SW 1/4 NW 1/4, NW 1/4 SW 1/4, S 1/2 SW 1/4, SE 1/4, sec. 27, T. 7 S., R. 98 W., sixth principal meridian.
3/ This informal nomenclature refers to the lower third of the Parachute Creek member.

January 26, 1960 (B-D 101(a)). On November 10, 1959, contestees' representative obtained two samples from the claims. On November 11, 1959, claimant John Savage obtained a third sample, and he and Spengler also obtained a fourth. All samples were taken from weathered outcrops, resulting in lower assays than would be the case if unexposed rock in place had been sampled.

On February 25, 1963, Spengler submitted a supplemental mineral report (B-D 101(b)), in which additional sampling by Spengler and McIntosh on August 21 and 22, 1962, was discussed. The supplemental report notes that the additional sampling was conducted to demonstrate that the Lower Shaly member contains "abundant barren sandstone and siltstone and only a few oil bearing marlstones" (B-D 101(b), p. 8). It was observed that high grade oil shale should outcrop more prominently than the sandstone because of its greater resistance to weathering. The Compass claims contain no such outcroppings. Spengler concluded that the group contains "the lowest grade and thinnest [sic] bedded oil shale and the smallest total amount of potentially valuable oil shale of any deposit previously examined," particularly in the cases of the Southeast and the Northeast claims. Id. at 9.

In a second supplemental mineral report dated March 16, 1977 (B-D 101(c)), Spengler identified those portions of the claims he found nonmineral in character: The Southeast and Northeast claims in their

entirety; the SW 1/4 SE 1/4 SW 1/4 and the SW 1/4 SW 1/4 of the Southwest claim; and the NE 1/4 NW 1/4 and the E 1/2 NW 1/4 NW 1/4 of the Northwest claim, all in sec. 27, T. 7 S., R. 98 W., sixth principal meridian.

Spengler adverted to an interview with Ronald C. Johnson, who, in 1975, preliminarily mapped the area. 4/ The report states that Johnson was of the opinion that "there are no oil shale beds below 'B' groove (the transitional zone immediately below the Mahogany zone) in the [vicinity of the Compass claims] other than one thin (less than one foot) bed * * *." Id. at pp. 3-4.

He concluded, based upon the information available to him, that "there are only a few scattered low grade beds of oil shale below 'B' groove and that the beds are low grade and not feasible for exploitation using current mining heights and cutoff grades." Therefore, regarding only the beds above 'B' groove as valuable beds, Spengler stated that erosion had removed such valuable beds from the Northeast and Southeast claims entirely, and that a total of 61 percent and 68 percent of those beds had been eroded from the Southwest and Northwest claims, respectively, B-D 101(C), Table 1.

4/ Geological Survey Map MF-688; "Preliminary Geologic Map, Oil Shale Yield Histograms and Stratigraphic sections, Long Point Quadrangle, Garfield County, Colorado."

THE CARBON AND ELIZABETH CLAIMS

These claims are situated in secs. 32 through 36, T. 4 S., R. 97 W., sixth principal meridian. 5/ Neither the Douglas Creek nor the Garden Gulch members, or their lateral equivalent, the Anvil Point member, is exposed upon the claims. The Parachute Creek member does not outcrop on these claims, though it is exposed less than 2 miles away from the Carbon No. 4 and the Elizabeth No. 1 (B-D 210, p. 23). The Mahogany marker is some 490 to 900 feet below the surface of the claims. Id. at p. 22. The principal exposure is of the Uinta formation, with interfingering of the Bull Fork, Barnes Ridge, Stewart Gulch, and Coughs Creek marlstone tongues, which are not generally well exposed. Id. at pp. 23-24.

Several holes were drilled on the claims. Of these, only two penetrated the Parachute member. The Carbon hole, located on the Carbon No. 4 claim, intersected the Mahogany marker at 435 feet below the surface. The Elizabeth 1 hole, located on the Elizabeth No. 4 claim, intersected the Mahogany marker at 724 feet. Neither corehole is positioned so that contestees might claim a discovery benefitting any adjoining claims, except inferentially (B-D 105, B-D 203, B-D 204). These coreholes, however, were drilled after February 25, 1920.

5/ The Carbon and Elizabeth claims are situate in N 1/2 N 1/2 sec. 32, and in secs. 33 through 36, T. 4 S., R. 97 W., sixth principal meridian, their entirety. Portions of the surface and mineral estates have been patented and are not here involved.

Under the principles earlier discussed, we conclude that the charge of lack of discovery must be sustained against some of the Compass claims, and against the Carbon and Elizabeth claims in their entirety.

The Northeast and Southeast claims are null and void for lack of a sufficient discovery under Freeman v. Summers. There are no exposed values within the claim which appear to connect with or lead to substantial prospective values. The valuable oil shale member has been completely eroded away.

The remaining claims have been examined in 10-acre tracts. See Table 1, B-D 101(C). We hold that the following tracts of the Southwest claim must be excluded from contestees' pending application for patent, as nonmineral in character:

T. 7 S., R. 98 W., sixth principal meridian
sec. 27
SW 1/4 SW 1/4
SW 1/4 SE 1/4 SW 1/4.

In the instance of the Northwest claim, the following 10-acre tracts are held to be nonmineral in character and are accordingly excluded from the patent application:

T. 7 S., R. 98 W., sixth principal meridian
sec. 27
NE 1/4 NW 1/4
E 1/2 NW 1/4 NW 1/4

The remaining portions of the Northwest and the Southwest claims are held to be supported by a discovery of valuable mineral deposit, and the charge of lack of discovery in the contest complaint is dismissed as to them. Those tracts are as follows:

T. 7 S., R. 98 W., sixth principal meridian
sec. 27
SW 1/4 NW 1/4
NW 1/4 SW 1/4
W 1/2 NW 1/4 NW 1/4
N 1/2 SE 1/4 SW 1/4
SE 1/4 SE 1/4 SW 1/4

[4] None of the Carbon and Elizabeth claims contain disclosures of mineral. The corehole findings avail contestees nothing as they were drilled after February 25, 1920. As we read Freeman v. Summers an exposure of the Parachute Creek member, even though of limited extent, can be geologically inferred to embrace sufficient quantity of high grade oil shale so as to constitute a valuable mineral deposit. Nevertheless, the physical exposure of that member is the sine qua non of a discovery, and absent a discovery in existence on February 25, 1920, the claims were not excepted from the provisions of the Mineral Leasing Act. The Carbon and Elizabeth claims are therefore declared null and void on the ground that they contained no exposure of a valuable mineral deposit upon which claimants could rely to geologically infer the existence of richer beds at depth as of February 25, 1920.

The existence of qualifying discoveries on each of the Oyler claims is conceded by the Government and we hold the complaint regarding these claims dismissed as to the discovery charge.

We adhere, however, to our decision in United States v. Bohme, supra, in which the Compass claims were held valid, and the Carbon and Elizabeth, and Oyler claims declared null and void on the sole ground of failure to comply with the provisions of 30 U.S.C. § 28 (1976), governing annual assessment work. All else being regular, therefore, those portions of the Northwest and Southwest claims as hereinbefore described, supra, shall immediately proceed to patent, all else being regular.

Therefore, pursuant to the authority delegated to the Board of Land appeals by the Secretary of the Interior, 43 CFR 4.1, in Contest No. 658, the portions named above of the Northwest and Southwest claims held supported by a discovery, shall proceed to patent, all else being regular. The Northeast and Southeast and remaining portions of the Northwest and Southwest claims in Contest No. 658 are null and void for lack of a discovery. In Contest No. 659, the Carbon and Elizabeth claims are held null and void on the grounds of lack of a discovery and failure to substantially comply with the assessment work provisions of the mining law. In Contest No. 660 the withdrawal of the charge relating to lack of discovery is accepted, but the Oyler claims are declared

null and void on the ground of failure to substantially comply with the assessment work provisions.

Douglas E. Henriques
Administrative Judge

We concur:

Edward W. Stuebing
Administrative Judge

James L. Burski
Administrative Judge